

The invention in which an exclusive right is claimed is defined by the following:

1. A method for enabling a user to select a specific menu item from among a plurality of different menu items being displayed, to access data in a database that has been opened by a database program, comprising the steps of:

(a) providing an input device having a plurality of user actuatable switches;

(b) creating a menu that comprises a plurality of menu items, wherein there is a one-to-one relationship between each menu item and a different user actuatable switch from among the plurality of user actuatable switches, and wherein the menu items are each associated with data in the database;

(c) displaying the menu to a user on a display, wherein said display does not comprise said user actuatable switches; and

(d) enabling the user to select a menu item to access the data in the database associated with the menu item that was selected, by actuating a user actuatable switch that corresponds to said menu item.

2. The method of Claim 1, wherein said input device comprises a keyboard having a plurality of specific keys, and wherein said plurality of user actuatable switches comprises said plurality of specific keys.

3. The method of Claim 2, wherein the step of creating a menu comprises the step of formatting the menu so that the plurality of menu items are arrayed in a layout that is generally similar to a layout of at least the specific keys on the input device for which there is the one-to-one relationship with the menu items, such that a user can visually discern said one-to-one relationship between the menu items and the specific keys, from the layout of the specific keys and the layout of the menu items.

4. The method of Claim 2, wherein the step of providing the keyboard input device comprises the step of providing uniquely labeled specific keys; and wherein the step of creating the menu comprises the step of including a label on each menu item matching a unique label on the corresponding specific key for which there is the one-to-one relationship with the menu item, so that the user can visually discern said one-to-one relationship between a menu item and its corresponding specific key, by matching the label on the menu item with the unique label on its corresponding specific key.

5. The method of Claim 2, wherein the step of actuating a specific key causes a programmed action to be executed, as defined by the associated data in the database accessed by the corresponding menu item.

6. The method of Claim 2, wherein the step of creating a menu comprises the step of determining a number of desired menu items, and a number of specific keys available in said plurality of specific keys, and when the number of desired menu items exceeds the number of specific keys available in said plurality of specific keys, employing one of the plurality of menu items to open an additional menu that is displayed if the user actuates a specific key corresponding to said one menu item, said additional menu including at least a portion of the desired menu items not previously displayed.

7. The method of Claim 2, wherein the step of providing a keyboard input device comprises the step of providing a generally conventional computer keyboard having a numeric keypad that includes the plurality of specific keys.

8. The method of Claim 7, wherein the step of creating a menu comprises the step of formatting the menu to duplicate an appearance of at least a portion of said numeric keypad.

9. The method of Claim 8, wherein the step of formatting the appearance of the menu comprises the step of arraying the menu items to generally duplicate a spatial configuration of said numeric keypad, so that the user can visually discern said one-to-one relationship between the menu items and the keys of the numeric keypad by comparing said spatial configuration of the keys of said numeric keypad with the spatial configuration of the menu items comprising the menu displayed.

10. The method of Claim 8, wherein the step of formatting the appearance of the menu comprises the step of including a number with each menu item that corresponds to a number of the key on the numeric keypad in which the menu item is in the one-to-one relationship, so that the user can visually discern said one-to-one relationship, by comparing the number on each menu item with the number on each of the keys of the numeric keypad.

11. A method for enabling a user to select a specific menu item from among a plurality of different menu items being displayed on a screen using a numeric keypad, to access data in a database, comprising the steps of:

(a) providing a keyboard input device that includes a numeric keypad having a plurality of keys numbered sequentially;

(b) creating a menu that comprises a plurality of menu items such that each menu item corresponds to a different one of the keys on the numeric keypad;

(c) displaying said menu to a user so as to indicate a one-to-one relationship between each menu item and its corresponding one of the keys on the numeric keypad; and

(d) enabling a user to select a menu item to access data in the database by actuating a specific key that correspond to the menu item that was selected.

12. The method of Claim 11, wherein the step of creating the menu comprises the step of formatting the menu so that the menu items are arrayed in a layout that generally duplicates a layout of at least a portion of the keys in the numeric keypad, so that the user can visually discern said one-to-one relationship between the menu items and the keys by comparison of the layout of said at least the portion of the keys and of the menu items.

13. The method of Claim 11, wherein the step of creating the menu comprises the step of duplicating a spatial configuration of said at least a portion of the keys, such that the user can visually discern said one-to-one relationship between each menu item and its corresponding key by comparing said spatial configuration of said at least the portion of the keys on the numeric keypad with a spatial configuration of the menu items displayed.

14. The method of Claim 11, wherein the step of creating the menu comprises the step of providing each menu item with a number that corresponds to a number of its corresponding key, such that a user can visually discern said one-to-one relationship between each menu item and its corresponding key, by matching the numbers of the menu items to the corresponding numbers of the keys.

15. The method of Claim 14, wherein the numbers of the menu items are displayed to the user when the menu is displayed.

16. The method of Claim 11, wherein the step of creating a menu comprises the step of including at least one of a text label and a graphic label with at least some of the menu items comprising the menu that is displayed to the user, said at least one of the text label and the graphic label providing an indication of a function that will be implemented by selecting a menu item with which said at least one of the text label and the graphic label is included.

17. An article of manufacture adapted for use with a computing device to enable a user to rapidly select a specific menu item from among a plurality of different menu items being displayed on a screen, to access data in a database, comprising:

- (a) a memory medium; and
- (b) a plurality of machine instructions, which are stored on the memory medium, said plurality of machine instructions, when executed by a processor in a computing device, causing the processor to:
  - (i) create a menu that includes a plurality of menu items;
  - (ii) display the menu that was created to a user in a format such that there is a one-to-one relationship between each menu item and a different specific key on a keyboard input device, each menu item being associated with data in the database; and
  - (iii) enable a user to select a menu item by actuating a specific key corresponding to the menu item, to access the data in the database associated with the menu item selected.

18. The article of manufacture of Claim 17, wherein the menu that is created duplicates an appearance of at least a portion of a plurality of specific keys on the keyboard input device, so that a user can visually discern said one-to-one relationship between the menu items and the specific keys.

19. The article of manufacture of Claim 17, wherein the machine instructions cause a spatial organization of the menu items to generally duplicate a spatial organization of said at least the portion of the plurality of special keys, so that a user can visually discern said one-to-one relationship between the menu items and the specific keys.

20. The article of manufacture of Claim 17, wherein the machine instructions cause the actuation of a specific key to execute an action defined by the data in the database associated with the corresponding menu item.

21. The article of manufacture of Claim 17, wherein if a number of desired menu items exceeds a number of specific keys available on said keyboard input device, the machine instructions cause one menu item to be employed to open an additional menu, so that when a user actuates a specific key corresponding to said one menu item, the additional menu containing at least a portion of the desired menu items not previously displayed is created and displayed to a user.

22. The article of manufacture of Claim 17, wherein said article is adapted to be used with a standard computer having a keyboard that includes a numeric keypad comprising the plurality of specific keys.

23. The article of manufacture of Claim 17, wherein the machine instructions cause the menu displayed to include labels on at least some of the menu items, each menu item having a label corresponding to a generally similar label on its corresponding specific key, so that a user can visually discern said one-to-one relationship between the menu items and the specific keys by comparing said labels on the menu items with the labels on the specific keys.

24. The article of manufacture of Claim 22, wherein the machine instructions cause the menu displayed to include one of a text label and a graphic label with at least some of the menu items comprising the menu that is displayed, said at least one of the text label and the graphic label providing an indication of a function that will be implemented by selecting a menu item.

25. A system for enabling a user to rapidly select a specific menu item from among a plurality of different menu items being displayed on a screen to access data in a database, comprising:

- (a) a memory in which a plurality of machine instructions are stored;
- (b) a display;
- (c) a keyboard input device comprising a plurality of specific keys; and
- (d) a processor that is coupled to the display and to the memory to access the machine instructions, said processor executing said machine instructions and implementing a plurality of functions, including:

- (i) creating a menu that comprises the plurality of different menu items and providing a one-to-one relationship between each menu item and a corresponding specific key, each menu item having associated data in the database;

- (ii) displaying the generated menu to a user; and

- (iv) enabling a user to select a menu item by actuating the specific key corresponding to the menu item, to access the data associated with the menu item in the database.

26. The system of Claim 25, wherein the menu substantially duplicates an appearance of at least a portion of said plurality of specific keys, such that a user can visually discern said one-to-one relationship between the menu items and the specific keys.

27. The system of Claim 26, wherein a layout of the menu items is substantially similar to a layout of at least the portion of said plurality of specific keys.

28. The system of Claim 25, wherein the functions implemented by the processor further include executing an action defined by the data in the database associated with a menu item in response to a user actuating the specific key corresponding to said menu item.

29. The system of Claim 25, wherein the keyboard input device comprises a standard computer keyboard that includes a numeric keypad comprising the plurality of specific keys.

30. A method for generating a plurality of menus for accessing data in a database opened in a database program, with a computing device, comprising the steps of:

- (a) providing:
  - (i) a plurality of database records, each database record including data relating to a menu;
  - (ii) a menu template; and
  - (iii) a menu template modifier;
- (b) accessing said plurality of database records with the menu template modifier; and
- (c) using said menu template modifier, recreating each of the plurality of menus when required, based upon the data in said plurality of database records and based on a format defined by said menu template.

31. The method of Claim 30, wherein the menu template defines a format for a menu in which a layout of a plurality of menu items comprising the menu generally corresponds to a layout of at least a portion of a plurality of specific keys on a keyboard input device.

32. The method of Claim 30, wherein the menu template produces a menu in which a layout of a plurality of menu items comprising the menu generally correspond to a layout of at least a portion of a plurality of keys comprising a numeric keypad of a computer keyboard.

33. The method of Claim 30, further comprising the steps of providing a plurality of controls in the menu template modifier that enable different actions when accessing data; and enabling the user to select a control for association with a menu item in the menu, so that when the menu item is selected, the control is activated.

34. A memory medium on which are stored a plurality of machine instructions adapted to be executed by a computer to cause a plurality of functions to be performed, said functions comprising:

- (a) enabling a user to execute a database program and to open a menu database including database records that contain information relating to different menus;
- (b) accessing said database records with a menu template modifier; and
- (c) recreating a menu based upon data included in a portion of said database records, in a format defined by a menu template.

35. A method for creating a menu in a menu database opened in a database program, comprising the steps of:

- (a) opening a menu database for storing database records;
- (b) accessing a menu template, and a menu template modifier that function under the database program, said menu template modifier displaying a menu form that includes menu items in a format defined by the menu template;
- (c) enabling a user to edit said menu form that is displayed to create a menu by entering data;
- (d) using said menu template modifier, generating a database record that includes data entered by the user defining an appearance and other parameters of the menu;
- (e) for each menu item included in the menu form using data entered by the user, using said menu template modifier to add to said database record data specifying an appearance and any events that will be actuated when a user selects that menu item during use of the menu; and
- (f) saving said database record in the database, so that the menu can subsequently be recreated when needed, using the menu template modifier, menu template, and said database record to define a form and a functionality of the menu.

36. The method of Claim 35, wherein the step of providing the menu template comprises the step of applying a format for the menu items so that each menu item has a one-to-one relationship with a different key from among at least a portion of a plurality of keys on a keyboard input device.

37. The method of Claim 36, wherein the menu template formats a spatial organization of the menu items to generally duplicate at least a portion of the plurality of keys on a numeric keypad.

38. A method for reducing an amount of memory required to store information for a plurality of menus that are included in a database opened with a database program, comprising the steps of:

- (a) providing a menu template for each of the plurality of menus, a menu template modifier, and a database that includes a plurality of database records in which are data specifying an appearance of each of the plurality of menus, and an appearance and functional parameters for each of a plurality of menu items in the plurality of menus; and



(b) using the menu template, the menu template modifier, and the database records to recreate any of the plurality of menus when needed, the database records not including any data for formatting the plurality of menus and the database not being used to store the plurality of menus in a complete form, so that the amount of memory required to store the information for the plurality of menu is substantially reduced compared to that required to store each of the plurality of menus in the complete form.

39. An article of manufacture adapted for use with a computer to enable a user to store information for a plurality of menus using substantially less memory resources, comprising:

- (a) a memory medium; and
- (b) a plurality of machine instructions stored on the memory medium, which when executed by a computer, cause the computer to:
  - (i) access a menu template and a menu template modifier, and a database;
  - (ii) enable a user to enter data for each of the plurality of menus;
  - (iii) generate a plurality of database records with the menu template modifier that include the data entered by the user defining an appearance of each of the plurality of menus and an appearance and functional parameters for each of a plurality of menu items included in the plurality of menus; and
  - (iv) said menu template defining a format for each of the plurality of menus and a spatial organization of the plurality of menu items in the plurality of menus, said plurality of database records, menu template, and menu template modifier subsequently being usable to recreate any of said plurality of menus when required, the database records not including any data for formatting the plurality of menus, and the database not being used to store the plurality of menus in a complete form, so that the memory resources required to store the information for the plurality of menus is substantially reduced compared to that required to store each of the plurality of menus in the complete form.

40. A method for utilizing a plurality of menus to access selected data in a menu database opened with a database program, comprising the steps of:

(a) providing a menu template that defines a format for each of the plurality of menus, a menu template modifier, and at least one menu database comprising a plurality of database records, said menu template modifier being capable of generating a menu based on said menu template and the data in said plurality of database records, the menu thus generated including a plurality of menu items;

(b) enabling a user to select a desired menu from the menu database;

(c) using said menu template modifier, said menu template, and a database record to generate the desired menu, said database record defining an appearance and a functionality of the menu items included within the desired menu;

(d) displaying said desired menu to a user to enable the user to select at least one of said plurality of menu items, said menu items that is selected having a database record that includes at least one event associated with the menu item; and

(e) in response to the menu item being selected by the user, causing said at least one of the plurality of events included in the database record associated with the menu item that was selected, to occur.

41. The method of Claim 40, wherein the step of enabling said at least one of a plurality of events to occur comprises at least one of displaying additional menu, displaying an image, displaying textual data, playing audio data, playing audio-visual data, playing video data, connecting to hyperlinked data, connecting to a webpage, establishing a telephonic connection, changing the menu database, displaying another menu, and selecting another menu item.

42. The method of Claim 41, further comprising the step of providing a sequencer component that determines an order in which a plurality of events associated with a menu item should occur and implements a timing function for causing the plurality of events to occur in said order.

43. The method of Claim 41, further comprising the step of enabling the user to disable sequencer events and the timer function, so that the user can bypass data with which the user is familiar and navigate through a sequence of menus more rapidly.

44. The method of Claim 41, further comprising the steps of:

(a) providing a plurality a database records that define a plurality of sequential menus; and

(b) enabling the user to select at least one of a sequence of menu databases, a sequence of menus, and a sequence of menu items, by selecting a single menu item.

45. The method of Claim 40, further comprising the step of providing a tracker component that records each menu item selected.

46. The method of Claim 45, wherein when an additional menu is displayed to a user, said tracker generates a textual report of menu items selected by a user on an immediately preceding menu.

47. The method of Claim 45, further comprising the step of enabling a user to generate a report that includes each previously selected menu item, said report being usable to provides results of a questionnaire comprising the menu items displayed to the user from which the user selected specific menu items.

48. The method of Claim 40, further comprising the steps of providing a timer function that automates display of successive menus; and enabling a user to selectively enable and disable said timer function.

49. The method of Claim 40, wherein the menu template displays the plurality of menu items in a spatial organization so that each menu item has a one-to-one relationship with a corresponding one of at least a portion of a plurality of keys on a keyboard input device.

50. The method of Claim 49, wherein the spatial organization of the menu items generally duplicates a spatial organization of at least a portion of a plurality of keys on a numeric keypad.

51. The method of Claim 40, further comprising the steps of providing an edit function with the menu template modifier, and enabling a user to selectively edit one of a desired menu and a desired menu item in a menu with the menu template modifier.

52. An article of manufacture adapted for use with a computing device, comprising:

- (a) a memory medium; and
- (b) a plurality of machine instructions stored on the memory medium, which when executed by a processor of the computing device, causing the processor to:
  - (i) enable a user to select a desired menu in a menu database opened in a database program;
  - (ii) access a menu template, a menu template modifier, and a plurality of database records in which data are included that define an appearance of the desired menu, and an appearance and functionality for a plurality menu items included in the desired menu;
  - (iii) use the menu template, the menu template modifier, and the plurality of database records to recreate the desired menu;
  - (iv) display said desired menu to a user to enable a user to select at least one of a plurality of menu items; and
  - (v) enable at least one of a plurality of events associated with the menu item that was selected to occur in response to the selection of the menu item.

53. The article of manufacture of Claim 52, wherein said menu template defines a format in which the menu items in the desired menu are displayed so that a layout of the menu items generally duplicates a layout of at least a portion of a plurality of keys on a keyboard input device.

54. A system for enabling a user to access data in a menu database opened with a database program, using a plurality of predefined menus, comprising:

- (a) a memory in which a plurality of machine instructions are stored;
- (b) a display;
- (c) a keyboard input device comprising a plurality of keys, and
- (d) a processor that is coupled to the display and to the memory to access the machine instructions, said processor executing said machine instruction to implement a plurality of functions, including:
  - (i) enabling a user to select a desired menu from the menu database, said desired menu including a plurality of menu items;

(ii) using a menu template that defines a format of the desired menu, a menu template modifier, and a database record included in the menu database, recreating the desired menu, said database record including data that define an appearance and functional parameters of the menu items.

(iii) displaying said desired menu to the user, and enabling the user to select at least one of a plurality of menu items, the data defining each menu item in a database record specifying any events associated with the menu item; and

(iv) enabling at least one of a plurality of events associated with the menu items that was selected by the user to occur.

55. The system of Claim 54, wherein said menu template formats a layout of the menu items included in the desired menu to generally duplicate a layout of a plurality of keys on at least a portion of a keyboard input device, so that there is a one-to-one relationship between each menu item and a corresponding one of the plurality of keys in said at least the portion of the keyboard input device.

56. The system of Claim 55, wherein said at least the portion of keys comprises a numeric keypad of a keyboard.